

Rediscovery and Redescription of the Moth, *Euxoa marinensis*

(Lepidoptera : Noctuidae)

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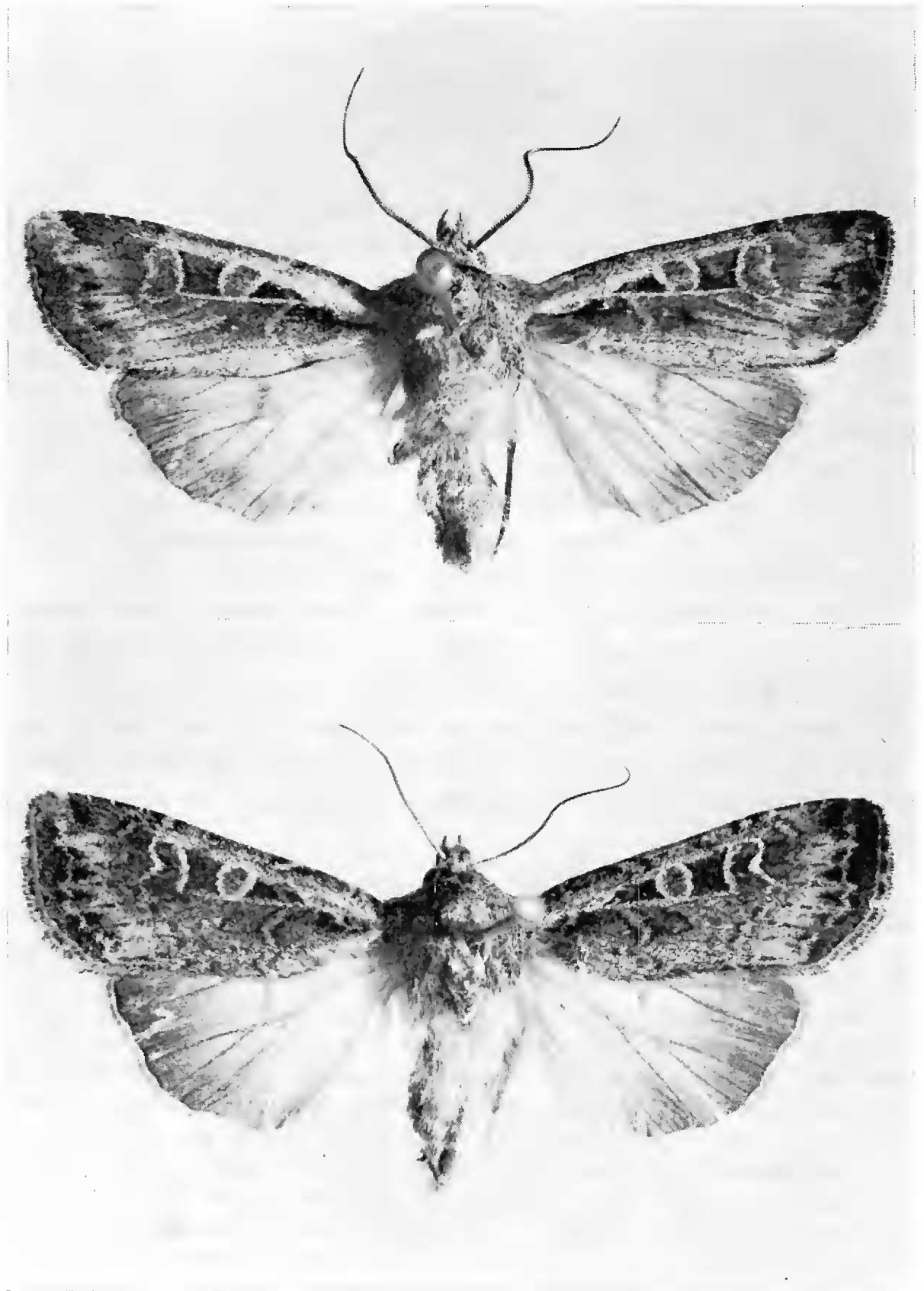
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Euxoa marinensis McDunnough in the past has been known only from the type series and two specimens in the Bauer-Buckett collection, Davis. The holotype male (Number 5204 in the Canadian National Collection) was collected by W. R. Bauer at Inverness, Marin County, on 12 June 1940. During 1962, two additional collections of *E. marinensis* were made. It was commonly taken at a 15-watt fluorescent black light near Walker Creek, 2 miles south of Tomales, Marin County, California, in late July through August 1962 (J. S. Buckett and G. M. Trenam). Another series was collected at Dillon Beach, Marin County, 25 June through 12 August 1962 (M. G. Tunzi). Both localities were characterized by bush lupine, *Lupinus arboreus* Sims, and various grass species.

Neither the undissected adult nor the male and female genitalia have been previously illustrated, nor has the adult female been described. Apparently nothing is yet known of the immature stages of this insect.

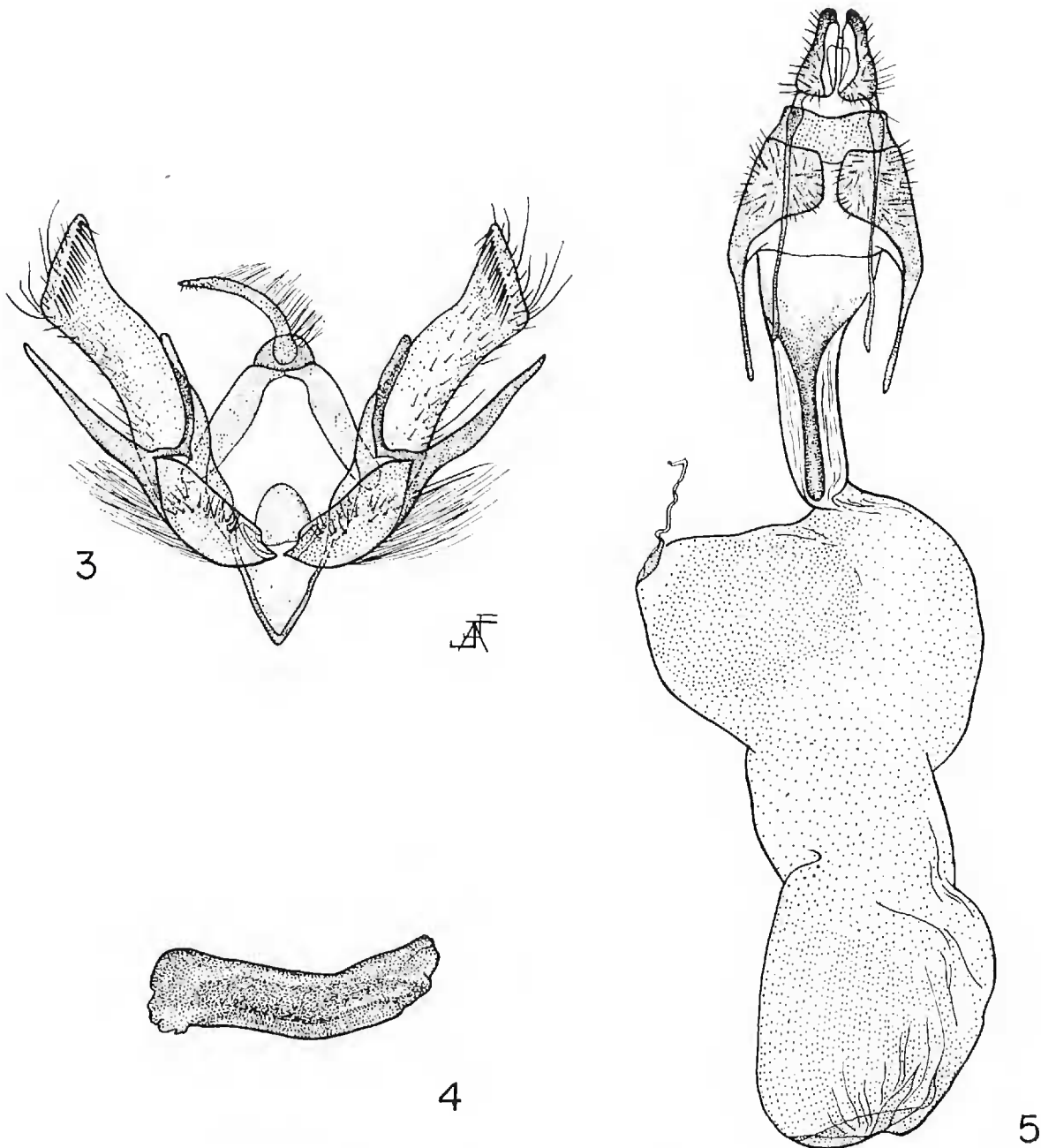
Euxoa marinensis is distinct from any other species in the *costata* group in anatomical features as well as in habitat. For the original description see McDunnough (1941). Supplemental descriptions are given as follows:

MALE.—Head and abdomen nearly concolorous, brown. Palps clothed with black hairs and brown scales, terminal segment slightly less than one-half length of preceding segment; proboscis black; a tuft of brownish tinged, red hairs protruding over frontal prominence; antennae bipectinate basally, tapering to simple ciliate terminally. Collar black; dorsum of thorax with intermixed brown, and fawn-colored hairs and scales, tipped with white; anterior tuft with white-tipped hairs; laterally at wing bases, pubescence shades into fawn-brown, or red-brown. Primaries with broad silver costal band, basally to just past reniform; thin silver band on cubital vein from basal area to below silver outlined orbicular, thence to base of silver outlined reniform, latter centrally with yellowish or cream-colored scales on outer portion, opening into costal band; ordinary lines obscured with exception of transverse anterior line which bows outwardly at middle, thence inwardly toward inner margin; inner margin with broad silver band from basal area to hind angle; subterminal line basally washed with white, apically dark brown; terminal space deep brown; terminal line indicated by small, black lunules between veins; fringes light brown. Ventral surface deep brown, reniform indicated by deeper brown. Secondaries very light smokey with broad brownish band at outer margin; discal lunule prominent, unicolorous with band; fringes white. Ventral surface dirty white, irrorated with brown scales near costal margin; discal lunule prominent, dark brown. Legs not banded, clothed with white-tipped brown hairs. Abdomen dark brown dorsally; ventrally dark brown intermixed with whitish and reddish scales and hairs.



EXPLANATION OF FIGURES

Figs. 1-2. *Euxoa marinensis* McDunnough. 1 (upper photograph), Male, 2 miles south of Tomales, Marin County, California, 22 July 1962 (J. S. Buckett and G. M. Trenam). 2 (lower photograph), Female, Dillon Beach, Marin County, California, 5 July 1962 (M. G. Tunzi).



EXPLANATION OF FIGURES

Figs. 3-5. *Euxoa marinensis* McDunnough. 3, Male genitalia minus the aedeagus, 2 miles south of Tomales, Marin County, California, 21 July 1962 (J. S. Buckett and G. M. Trenam), Bauer-Buckett Slide 62B4-25. 4, Aedeagus; same data as in Fig. 3. 5, Female genitalia, 2 miles south of Tomales, Marin County, California, 22 July 1962 (J. S. Buckett and G. M. Trenam), Bauer-Buckett Slide 62B4-29.

FEMALE.—Antennae simple, ciliate. Thorax lacking fawn-colored or red-brownish hairs at bases of primaries; ordinary lines prominent, simple with exception of geminate transverse anterior line; costal and inner marginal bands less pronounced due to irroration of brown scales; subterminal line creamy yellow. Ventral surface as in male. Secondaries with broader brown band on outer margin than that found in the male; fringes pure white. Ventral surface with broad, brown costal band; brown band present at outer margin. Alar expanse same as male, 15-16 mm.

Most of the specimens examined are located in the Bauer-Buckett

collection, Davis; however, a small series is in the collection of the University of California, Davis. The genitalic illustrations were made by Miss Judith Jay, departmental artist, Entomology Department, University of California, Davis. Appreciation is also due Mr. Gary Trenam for his help in this project.

LITERATURE CITED

- MCDUNNOUGH, J. 1941. New species of moths, mostly Californian. *Canadian Entomol.*, 73 (4): 66-76.

Identity of the Moth, *Euxoa wilsoni*

(Lepidoptera : Noctuidae)

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Since the variability of *Euxoa wilsoni* (Grote) has led to much confusion and the original description was based on an aberrant form, the status of this species is reexamined here.

EUXOA WILSONI (Grote)

Agrotis wilsoni Grote, 1873. *Bull. Buffalo Soc.*, 1: 135.

Agrotis specialis Grote, 1874. *Bull. Buffalo Soc.*, 2: 62.

Agrotis aequalis Harvey, 1876. *Canadian Entomol.*, 8: 36.

Euxoa wilsoni Grote, 1903. *Cat. Noctuidae Brit. Mus.*, 4: 204.

By analyzing Grote's original description and a figure of the type, it is possible to identify a Californian coastal species of *Euxoa* as *wilsoni*. The original description was published in 1873. A year later, Grote re-described "*Agrotis*" *wilsoni* once again as the original combination, and this paragraph preceded his description:

I have now received a series of this fine species which is subject to considerable variation. My original description and figure illustrate the form in which the costal region and subterminal space are not differentiated by a paler color. The more usual form resembles *sexatilis* or *subgothica*, on account of the paler coloration of the costal region of primaries.

Smith (1890) under his description of "*Carneades*" *wilsoni* stated,

A pretty and well defined species with no peculiarities, not already enumerated; it varies from luteous to bright red brown, the latter being typical of *specialis*. Mr. Edward's collection shows both forms. The antennal difference noted by Mr. Grote exists in terms only. *Wilsoni* equally has "tufts of bristles on the joints" and at the same time both forms have them "brush-like." The U.S. Museum collection contains a very pretty series of this species showing the very wide range of variation in ground color. Scarcely two specimens are entirely alike, and yet the characteristic appearance of the species is so marked that no mistake is possible in its recognition.